Written Testimony of
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Before the
Committee on Government Reform
U.S. House of Representatives
March 11, 2005

Good morning, Mr. Chairman and Members of the Committee. I am Donald Welsh, Regional Administrator for Region III of the United States Environmental Protection Agency (EPA). Thank you for the opportunity to provide an update on activities to resolve the problem of lead in drinking water in the District of Columbia.

EPA has maintained a priority focus on working with local officials and corrosion experts to reduce lead levels in the tap water. We have approved water treatment changes and are closely monitoring sampling results. We have issued administrative orders under the Safe Drinking Water Act to help ensure that people are protected and informed. And we have revised procedures and taken additional steps to achieve more effective oversight.

We are committed to working with the city and other partners to meet the challenges involved in safeguarding residents and restoring full confidence in the drinking water in the nation's capital.

Water Treatment Changes and Lead Monitoring Results

Since my last appearance before this committee, EPA Region III approved the application of orthophosphate to the drinking water supplied to the District of Columbia. Orthophosphate was recommended by the Technical Expert Working Group convened by EPA, and is used by many water systems nationwide to control corrosion. The orthophosphate is intended to form a protective coating inside the pipes and fixtures to decrease the amount of lead leaching from lead service lines and customers' plumbing systems.

Orthophosphate was added to the water in a small section of northwest Washington, D.C., in June 2004, and, after evaluation and EPA approval, has been applied since August 23 to the entire D.C. distribution system.

On January 10, 2005, the D.C. Water and Sewer Authority (WASA) submitted to EPA its tap water sampling results for the second half of 2004 which indicated a 90th percentile lead level of 54 parts per billion (ppb). The data showed that 31 percent of the homes tested had lead levels above the EPA action level of 15 ppb. EPA's Lead and Copper Rule requires that this percentage be reduced to 10 percent or below. Residents have been advised to continue to follow the consumer advisory for flushing and filtering water before use for drinking or cooking.

Sampling results provided by WASA also show that lead levels toward the latter half of the six-month monitoring period were lower than those from before or during early stages of the treatment.

Until further rounds of monitoring are done and lead levels are consistently below the action level, it is too early to declare this treatment fully effective. The preliminary data is supported by laboratory experiments using actual WASA lead service lines and simulating the conditions in the distribution system, known as pipe loop studies.

Experts in the field have indicated that it can take six months or more to begin seeing a drop in lead levels and a year or more for the treatment to reduce lead levels below the EPA action level. We have not seen anything in the data or in WASA pipe loop simulations that leads us to believe we are on the wrong track. The work is being reviewed at key points by an Independent Peer Review Panel formed by EPA. The Peer Review Panel helps ensure that the changes being made are informed by the best available science. We will continue to use outside expert peer review to provide feedback on important matters. We are proceeding with studies, for example, on the potential effectiveness of zinc orthophosphate, an alternate form of orthophosphate, and whether it could be introduced without adverse effects on wastewater treatment systems.

We anticipated red- or rusty-colored water and an increase in detection of coliform bacteria as temporary side effects of the orthophosphate treatment. Some instances of red water were reported, and in September 2004, WASA exceeded the maximum contaminant level for coliform bacteria. All bacteria concentrations and red water complaints began to subside in October 2004. EPA Region III assisted WASA and the D.C. Department of Health with public communication regarding the levels of coliform bacteria.

The City of Falls Church and Arlington County, which also receive treated water from the Washington Aqueduct, have experienced no adverse side effects from orthophosphate treatment, and lead levels, which were already below the EPA action level, appear to have decreased even further.

The Technical Expert Working Group, consisting of EPA, WASA, the Washington Aqueduct, the D.C. Department of Health, the U.S. Centers for Disease Control and Prevention, Arlington County, the City of Falls Church and outside corrosion control experts, will continue to evaluate the latest information, conduct necessary research, and update the public on a regular basis.

Compliance with Administrative Order

On June 17, 2004, Region III issued an administrative order on consent to D.C. WASA to address past violations and to order public health protections on multiple levels, including water filters, lead service line replacement, notifications to customers, lead testing and enhanced public education.

The consent order was the result of a four-month compliance audit that included on-site review of records and detailed evaluation of thousands of pages of documents that were formally requested by EPA.

We have instituted monthly compliance calls with WASA to ensure a full understanding of the obligations of the orders and that the required corrective actions are being taken.

Under this order, WASA is required to notify customers of the results of tap water sampling in writing within three days of obtaining the laboratory results, and to exercise its best efforts to provide customers with results within 30 days of taking the sample.

As a result of the order, WASA submitted and EPA approved a plan to supply replacement water filters to those customers that have known or suspected lead service lines. WASA last spring distributed approximately 37,000 water filters certified for lead removal to those customers. In January, WASA reported that the manufacturer of one of the replacement cartridges would not be able to meet the delivery needs. As a result, a new filter-pitcher system was delivered to approximately 7,500 affected homes.

In addition, the order compelled WASA to improve its efforts to communicate with the public on continuing developments regarding elevated lead levels in the water. Required public notifications have been made on time and with input from EPA. WASA has taken other communications initiatives and has hired George Washington University's School of Public Health to provide ongoing risk communication consulting. We have encouraged WASA to take full advantage of public education steps contained in EPA guidance and review documents.

The order prescribed a schedule for monitoring and reporting requirements. WASA has met those time frames in the reporting of monthly results and submission of plans and progress reports.

On January 14, 2005, EPA issued a supplement to the order. It cited WASA's failure to replace the required seven percent of lead service lines in 2003, determining that approximately 400 lead service lines were tested through an improper sampling technique. The supplemental order required WASA to notify customers who received inaccurate information and directed WASA to physically replace service lines equal to the number improperly sampled in 2003 in addition to the seven percent required under the rule and the replacements required by the initial order.

Lead Service Line Replacement

The June 2004 consent order requires WASA to update its baseline inventory of lead service lines each year to recalculate the seven percent of lines that must be replaced, to work with the D.C. Department of Health to establish criteria for health-based priority replacement of lines, and to implement a strategy to determine the makeup of service lines listed as "unknown" content.

In 2004, WASA exceeded the requirement for replacing the public portion of seven percent of all lead service lines in their system. All of the approximately 1,700 replacements were actual physical replacements, as prescribed in our administrative order. WASA has committed to replacing the public portion of all lead service lines by 2010.

In compliance with the June 2004 consent order, EPA has received and approved a plan by WASA to encourage property owners to participate in full replacement of lead service lines. Homeowners own the portion of the service line that runs from the property line to the home. The plan, which was recently implemented, includes a low-interest loan program, grants of up to $5,000 for low-income residents, and a fixed fee structure for line replacement.

Improvements to Process

EPA Region III revised its internal operating procedures in handling and reviewing data from the District to ensure multiple staff and managers review the compliance data. The procedures ensure that compliance and enforcement reviews are done separately from programmatic oversight. Data is now being tracked electronically so that trends will be more easily identifiable, and EPA is working with WASA and the Aqueduct to develop an electronic transfer protocol to fully automate data reporting and logging.

EPA has had more frequent contact with the D.C. Department of Health regarding drinking water matters in the district, and the health department is involved on a regular basis in discussions regarding the progress of treatment and water monitoring results as a member of the Technical Expert Working Group. We have also held more face-to-face meetings with the District's utilities to cover lead and other important topics. EPA has arranged for WASA and the Aqueduct to share monitoring results directly with the D.C. Department of Health.

Region III has participated in regular conference calls with L.E.A.D. (Lead Emergency Action for the District) Coalition members as one means to keep the community updated on actions taken, research and sampling results and the status of WASA's compliance with the administrative order. EPA has encouraged the coalition representatives to share the information with their members in the community.

With the assistance of a contractor, we are providing information to the public on the work of the Technical Expert Working Group. Outreach material is addressing lead levels, treatment status, data interpretation and other issues. We held four public meetings when the orthophosphate was about to be introduced to alert residents to the action and the potential temporary side effects. We also issued a mailing in two languages and coordinated with WASA in its mailing to every customer in the District about the new treatment.

We have built and continue to update a comprehensive Web site, www.epa.gov/dclead, containing public health advisory information, key communications between EPA and other parties, research plans and updates, data from the monitoring programs, and links to other helpful Web sites. The Web site was one of the early steps the region took to respond to the need

for more information. We also dispatched community outreach specialists to the District, provided radio outreach in English and Spanish, and participated in a series of public meetings.

EPA is preparing to increase funding for the Lead Safe D.C. program we established last year with the National Nursing Centers Consortium to educate residents at risk from elevated lead exposures from environmental sources, including lead-based paint and dust, as well as drinking water. The program assists residents through education, home visits and blood lead level testing in District neighborhoods.

Technical Assistance from EPA

EPA continues to provide technical assistance on lead and copper testing in non-residential buildings in the D.C. area. EPA has provided guidance on sample site selection and sampling protocol to federal facilities, schools and day care centers.

During the past year, we have provided technical assistance to WASA in designing sampling protocols for the sampling of day care facilities, apartments and other buildings. A total of 77 facilities completed sampling under our protocol. All results were reported to facilities managers and all outlets over the action level were to be remediated. We provided additional support to the sampling efforts by the Navy, the General Services Administration and the Architect of the Capitol, all of which are currently conducting sampling of buildings in the District.

Continuing Research

With the assistance of EPA headquarters, we have helped arrange for an engineering firm to conduct an historical analysis of water system data to help further our understanding of what may have caused the increase in lead.

We have developed a Facility Planning Research Outline that focuses on the broader issues of optimizing drinking water treatment in D.C. and overall public health protection through simultaneous compliance with all applicable regulations. Research topics include corrosion control, microbial control, disinfectants and disinfection by-products, and sampling plans.

We also have increased funding to EPA contractors to develop several new corrosion-related studies and to assist utilities, through the Technical Expert Working Group, in research and treatment communications.

The Technical Expert Working Group has been active in all phases of this issue as we work toward the elimination of elevated lead levels.

Conclusion

I want to assure you of EPA's continued dedication to finding the best solutions to the challenges that led to the public health concern in the District. We will continue to build on the progress that has been made. And we will keep this committee and the general public informed of developments in our work.

Thank you for the opportunity to present this information this morning. I will be pleased to answer any questions you may have.